Wetland Rapid Assessment

Overview

Step 1: Site Protocol

Step 2: Wetland Classification

Step 3: Site Characterization

Step 4: Filling out the Form

Step 1: Arriving at the Site

Walk the perimeter of the site and look for:

- Vegetative types
- Noxious/Undesirable Plants
- Amphibians and Reptiles
- Endangered Species
- Beaver Activity

…and any other outstanding features

(1) Write about all features observed in the ‘General Description’

(2) Photograph the entire site and main elements

Step 2: Classification

1.1Wetland Type

Assessing the Wetland to reflect the current, historic, or impenetrable surfaces (1.1), is designed to account for human alterations to a site that may have altered its class or its entire function as a wetland (e.g. dam, cattle tank, or building)

Current=Capability

Historic=Potential

The wetland has been completely altered= No longer a functioning Wetland,
Do not fill out form

Step 2: Classification

1.2 HGM System

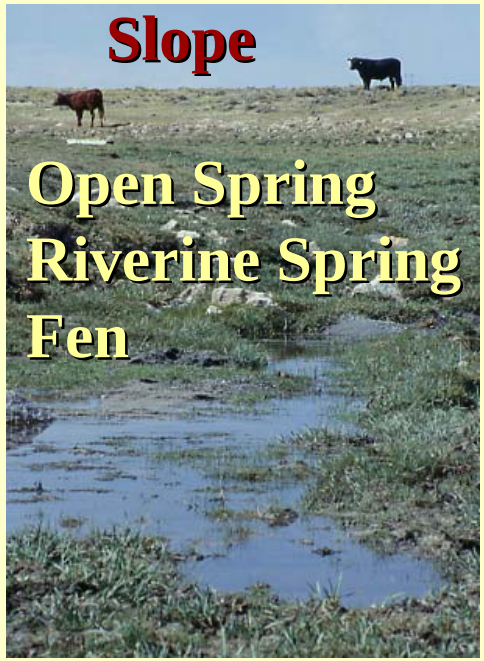
- 5 classes
- Circle most applicable Wetland Class and Sub-Class

1.3 Cowardin System

- 3 classes
- Flow Chart offers specifics on

System-Sub-System-Class-Water Regime-Modifier-Percent

HGM Wetland Classes



Cowardin System

System	Subsystem	Class	Water Regimes	Modifiers	Percent
Riverine *(Stream)*	Lower Perennial *(Larger Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Emergent Wetland			
		Rocky Shore			
		Unconsolidated Shore			
	Upper Perennial *(Smaller Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
	Intermittent	Rocky Shore			
		Unconsolidated Shore			
		Stream Bed			
Lacustrine *(Lake)*	Limnetic *(Deep water habitat)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
	Littoral *(Between Shore and Deepwater Habitat)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Emergent Wetland			
		Rocky Shore			
		Unconsolidated Shore			
Palustrine *(Pond)*		Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Emergent Wetland			
		Rocky Shore			
		Unconsolidated Shore			
		Moss-Lichen Wetland			
		Scrub-Shrub Wetland			
		Forested Wetland			

Choose System

Riverine
(Flowing Water)

Cowardin System

System	Subsystem	Class	Water Regimes	Modifiers	Percent
Riverine *(Stream)*	Lower Perennial *(Larger Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Emergent Wetland			
		Rocky Shore			
		Unconsolidated Shore			
	Upper Perennial *(Smaller Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Rocky Shore			
		Unconsolidated Shore			
	Intermittent	Stream Bed			

Choose Sub System

Riverine
(Flowing Water)

Lower
Elevation
Slope

= Lower Perennial

Cowardin Sub System

System	Subsystem	Class	Water Regimes	Modifiers	Percent
Riverine *(Stream)*	Lower Perennial *(Larger Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Emergent Wetland			
		Rocky Shore			
		Unconsolidated Shore			
	Upper Perennial *(Smaller Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Rocky Shore			
		Unconsolidated Shore			
	Intermittent	Stream Bed			

Choose a Class

Unconsolidated Shore

Rocky Bottom

Lower Elevation Slope

= Lower Perennial

Emergent Wetland

Cowardin Class

System	Subsystem	Class	Water Regimes	Modifiers	Percent
Riverine *(Stream)*	Lower Perennial *(Larger Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Emergent Wetland			
		Rocky Shore			
		Unconsolidated Shore			
	Upper Perennial *(Smaller Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Rocky Shore			
		Unconsolidated Shore			
	Intermittent	Stream Bed			

Choose a Water Regime

Unconsolidated Shore

Rocky Bottom
Permanently Flooded

Lower Elevation Slope

= Lower Perennial

Emergent Wetland

Intermittently Exposed

Cowardin Water Regime

System	Subsystem	Class	Water Regimes	Modifiers	Percent
Riverine *(Stream)*	Lower Perennial *(Larger Tributary)*	Rocky Bottom	P		
		Unconsolidated Bottom			
		Aquatic Bed			
		Emergent Wetland	C		
		Rocky Shore			
		Unconsolidated Shore	B		
	Upper Perennial *(Smaller Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Rocky Shore			
		Unconsolidated Shore			
	Intermittent	Stream Bed			

Choose a Modifier

Unconsolidated Shore

Rocky Bottom

Permanently Flooded

Lower Elevation Slope

= Lower Perennial

Emergent Wetland

Intermittently Exposed

Any Modifiers?

Cowardin Modifiers

System	Subsystem	Class	Water Regimes	Modifiers	Percent
Riverine *(Stream)*	Lower Perennial *(Larger Tributary)*	Rocky Bottom	P	N	
		Unconsolidated Bottom			
		Aquatic Bed			
		Emergent Wetland	C	N	
		Rocky Shore			
		Unconsolidated Shore	B	N	
	Upper Perennial *(Smaller Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Rocky Shore			
		Unconsolidated Shore			
	Intermittent	Stream Bed			

Estimate a Percent

Unconsolidated Shore

Rocky Bottom
Permanently
Flooded
30 %

Lower
Elevation
Slope

= Lower Perennial

Emergent
Wetland

Intermittently
Exposed
20 %

Complete Cowardin

System	Subsystem	Class	Water Regimes	Modifiers	Percent
Riverine *(Stream)*	Lower Perennial *(Larger Tributary)*	Rocky Bottom	P	N	30%
		Unconsolidated Bottom			
		Aquatic Bed			
		Emergent Wetland	C	N	20%
		Rocky Shore			
		Unconsolidated Shore	B	N	50%
	Upper Perennial *(Smaller Tributary)*	Rocky Bottom			
		Unconsolidated Bottom			
		Aquatic Bed			
		Rocky Shore			
		Unconsolidated Shore			
	Intermittent	Stream Bed			

Step 3: Site Characterization

Observations on what habitat this wetland provides

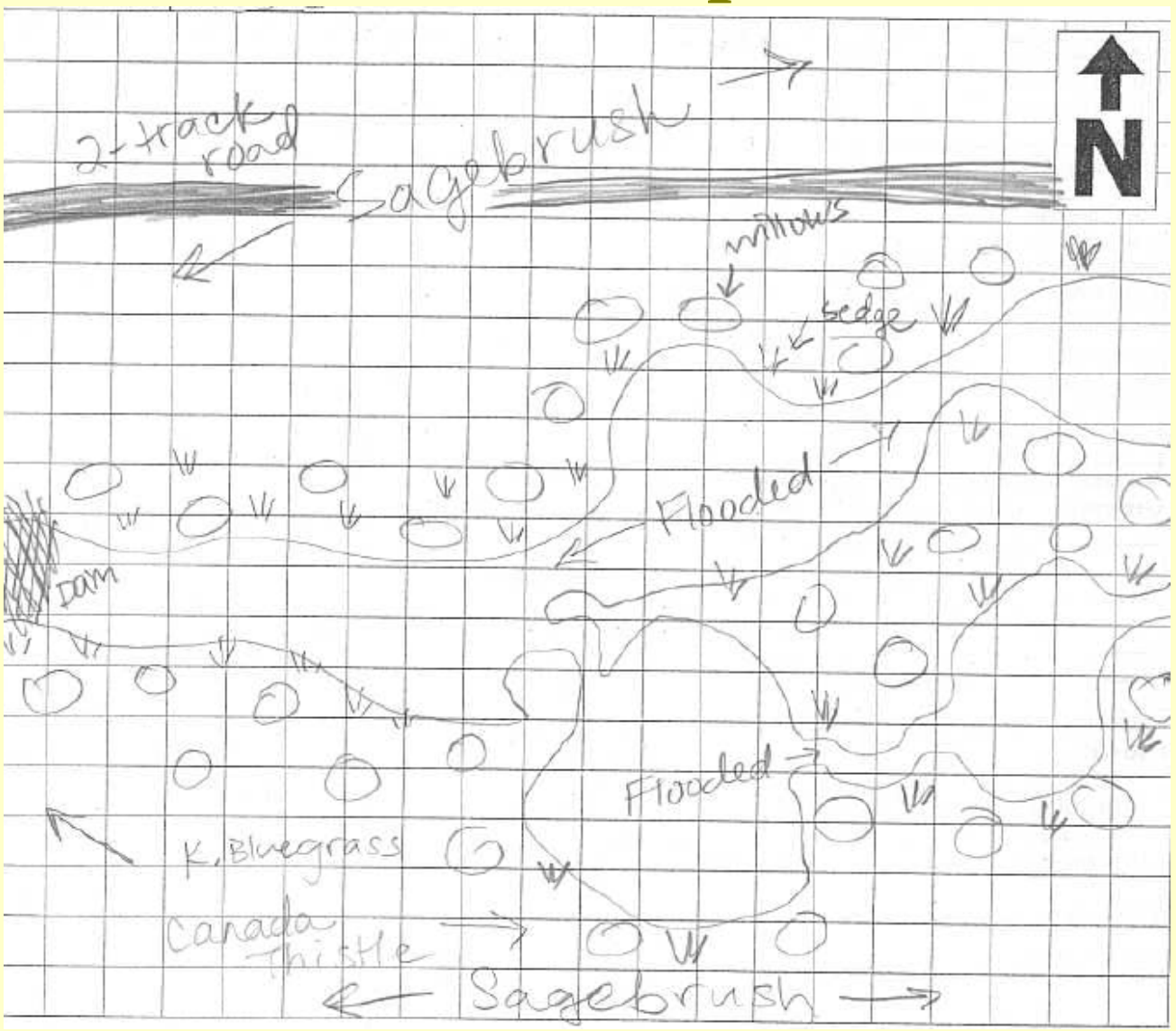
Opportunity to document the size, shape, and wetland features present

Are Fish present?

Any Amphibian or Reptiles observed?

Endangered Species?

Site Map



Use Legend for easy and quick drawing, but feel free to map things not included in the legend (e.g. cattails, pumps, litter, etc.)

Step 4: Filling Out the Form

3.0 Hydrogeomorphology

4.0 Vegetation

5.0 Water Quality

6.0 Buffer Condition/Degree of Stress

3.0 Hydrogeomorpholgy

3.1 Flow Patterns

3.2 Water withdrawal and Fluctuating water levels

3.3 Dredging and Filling

3.4 Pugging and Hummocking

**Skip the rest, unless Riverine*

Hydrogeomorphology: Riverine Only

- Downcutting
- Lateral Erosion
- Stream Bank Stability
- Floodplain Characteristics
- Vegetation with Deep Binding Rootmass
- % of Floodplain with Vegtation having a stability rating equal or greater than 6

Hydrogeomorpholgy Example

Flow Alterations? No

Fluctuating Water Level? No

Dredging and Filling? No

Pugging

Willows have Deep Binding Vegetation

And a high Stability rating!!

Sediment Intact On Floodplain

Downcutting? No **Lateral Erosion?** No **Point Bars Forming?** No

Hydrogeomorphology Index

Riverine Index:

____+____+____+____+____=____

____+____+____+____+____= ____=_____

Hydrogeomorpholgy Index:

____+____ 20 = ____ (+_____ 2) = _____

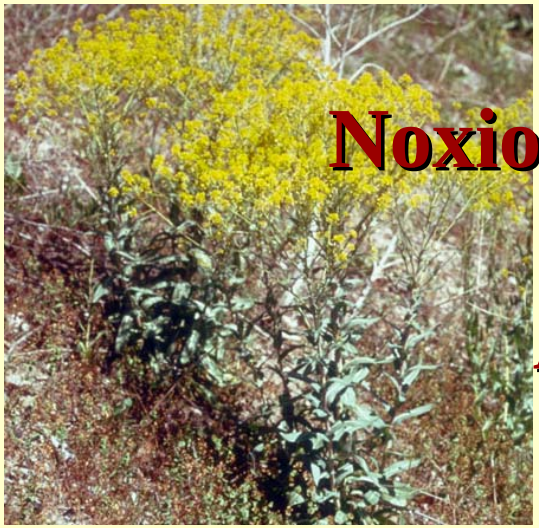
**Riverine Index*

4.0 Vegetation

Bare Ground

Undesirable Plants

Noxious Weeds



Aquatic Undesirable Plants

Vegetation
(Woody Species)

Skip the rest of this section if the site does not have the potential for tall shrubs or trees or woody vegetation is not present due to natural causes (not human impacts or removal).

Woody Vegetation

(Willows, Alders,a.k.a Scrub Shrub)

Utilization of Shrubs

(Browsing)

Percent of Physical Removal of Shrubs or Trees

Vegetation Index

Lowest Scores from Only 4.1-4.4 Herbaceous:

_____+_____+_____= _____/30=

<u>OR</u> *(if potential for Woody Vegeation exists)*

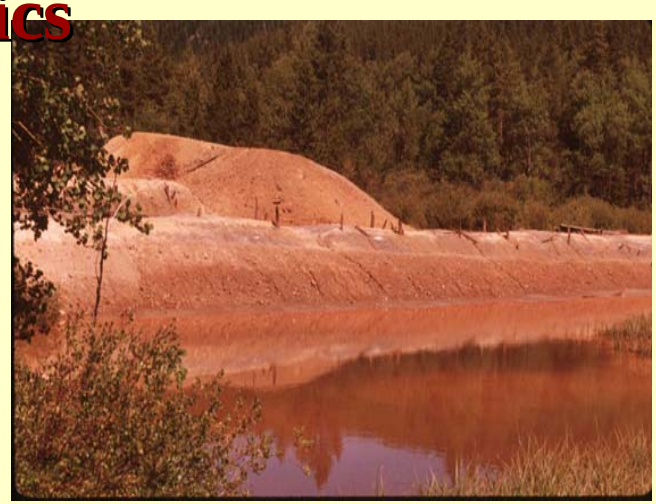
Lowest Scores from 4.1-4.7 For Herbaceous, Shrubs, and Trees:

_____+_____+_____+_____+_____+_____=_____ /60=

5.0 Water Quality

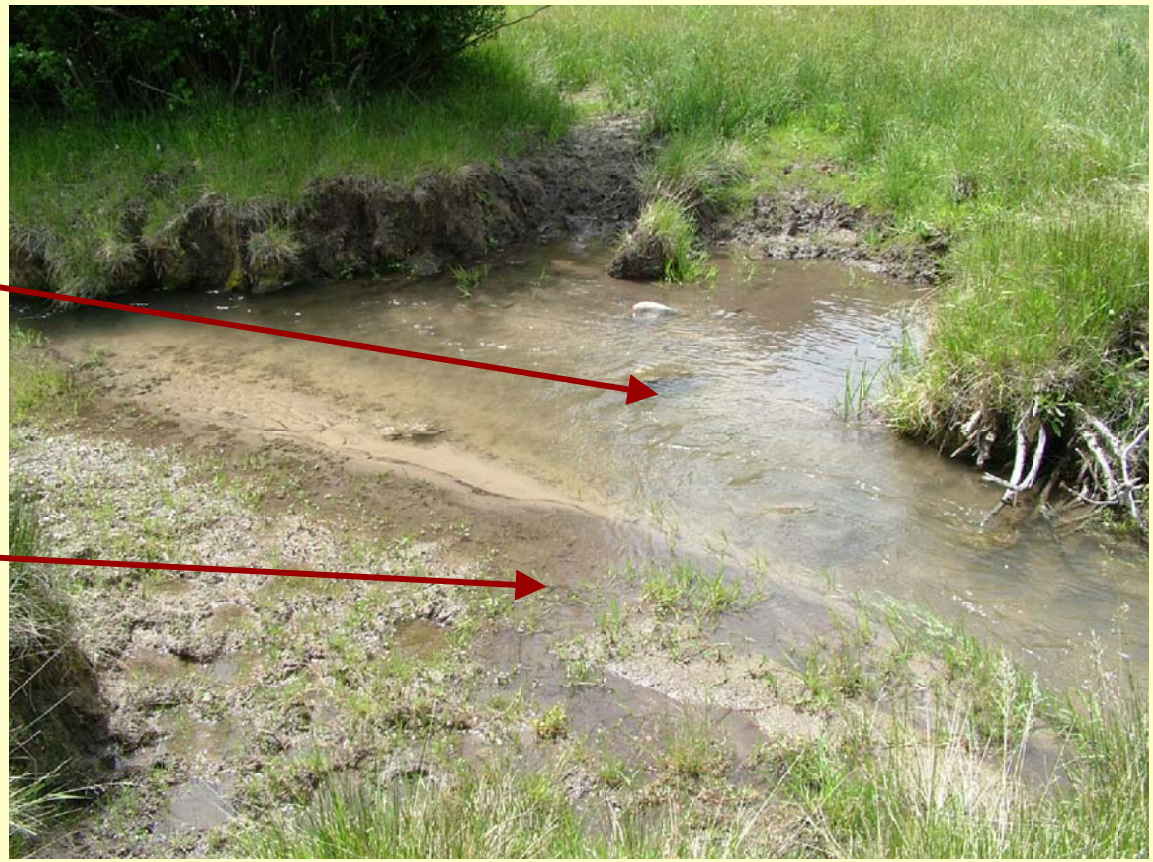
- **Algae**

- **Nutrients**
- **Sediment & Turbidity**
- **Toxics**



- **Cattails**
- **Surface Oils and Foams**
- **Salinity** **Saline Seeps?*

Water Quality Example



Cattails? No

Surface Oils or Foams? No

Saline Seeps? No

Water Quality Index

Sum the lowest 2 scores and divide by 20:

_____+_____ =_____ /20 = _____

6.0 Buffer/Degree of Stress

Stressors in the Buffer

- Bare Ground
- Noxious Weeds
- Undesirable Plants

Degree of Stress

- Grazing

Buffer/ Degree of Stress

Percent of Buffer Occupied

- Hayfields
- Row Crops
- Recreational Activities
- Clearcuts
- Feedlots or Concentrated Livestock Watering
- Human Constructed Dams or Dikes
- Human-Induced Saline Seeps
- Industrial or Commercial Activities
- Residential Development
- Oil and Gas Development

Also, if any of the above exist between 100 and 500m from Wetland

Buffer/ Degree of Stress

Roads

- 2-Track
- Gravel or other dirt roads
- Paved roads

Different scoring for roads UpSlope from Wetland

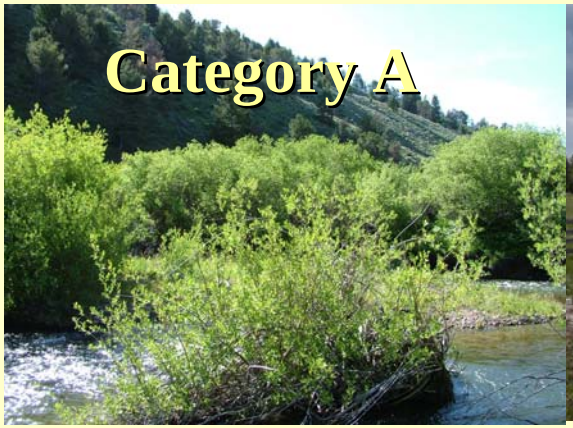
Buffer/Degree of Stress Index

Sum the four lowest sores and divide by 40:

_____+_____+_____+_____=_____/40 =

7.0 Restorability

Categories(A-C): Ease of Restoration



Sub Category 1

Sub Category 2

Sub Category 3

Sub-Categories (1-4): Wetland Condition Trends (natural restoration processes taking place)

Overall Scoring

	Water	No Water
Hydrogeomorphology	**(.3)**	**(.4) =___**
Vegetation	**(.3)**	**(.4) =___**
Water Quality	**(.2)**	**---- =___**
Buffer Condition	**(.2)**	**(.2) =___**
		+_____
	Overall:	

Final Comments

Rank Stressors

Overall Comments

Questions?